

REMARKS

The Examiner rejected claims 1-5, 7-13, and 16 as being obvious over Sainsbury in view of Kataoka. Applicant respectfully traverses the 35 USC §103 rejection. According to MPEP 2141.01(a), the PTO field of search classification is evidence of analogy. Because not a single one of the two search field and nine subfield classifications of Kataoka is shared by the seven search field and twenty five subfield classifications of Sainsbury, Applicant submits that in the judgment of the two prior involved Examiners there is insufficient analogy to find a motivation to combine. Although there may be some varied interests associated with sandbags, they are useful mainly for impeding undesirable water movement, and there is no reasonably conceivable motivation for an inventor to look for a patent titled "Sandbag" while working on an invention in the field of "Geological Exploration Method and Apparatus".

Examiner offers as sole motivation to make such a link between Kataoka and Sainsbury the fact that Sainsbury does not specify a material for his bag, but does indicate a need for a strong bag. Office Action page 2, paragraph 3. To complete his grounds for an obviousness rejection Examiner then connects the strength of Kataoka's bag with its absorbency. Office Action page 2, paragraph 4.

The Examiner's grounds are invalid. First, Applicant neither discloses nor claims a "strong" bag, or a bag of any kind, and therefore would have no motivation to search for references in the field of strong bags. Sainsbury's bag requires strength because his device drags the bag along the ground and fills it with dirt and rocks, as with a bucket. Applicant claims a device and method for sampling air. See independent claims 1, 6, and 21.

Second, assuming but not admitting some minimum motivation to combine Kataoka and Sainsbury, neither the subject matter of Kataoka nor the subject matter of Sainsbury are “reasonably pertinent to the particular problem with which the inventor is involved,” as is required for obviousness. *In re Clay*, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992). Applicant does not disclose or claim a bag of any sort, much less a sandbag. Applicant’s claims relate to an absorbent filter media “being capable of absorbing particulate matter from an airstream.” See claim 1. Kataoka’s absorbency feature is not any way related to filtration, and is not achieved by the bag itself, but rather by a discrete, separate, internal package of resin that swells upon contact with water. That feature increases pressure on the sand inside the bag and is not analogous to or remotely related to Sainsbury’s or Applicant’s inventions.

The underpinning of Examiner’s obviousness rejections is Sainsbury’s aerodynamic shaped device that includes a mesh bag. Office Action page 2, paragraph 2. In appearance and function, Sainsbury’s device resembles a cylindrical tube with a bag on one end. The tube is fitted with “aerodynamic stabilizing and guiding fins” (column 3, line 11), that Examiner apparently equates with the airfoil feature of Applicant’s invention. There is no correlation between Applicant’s airfoils and the aerodynamic shape of the Sainsbury soil collection bucket. Sainsbury’s aerodynamic “stabilizing and guiding fins” perform the useful function of keeping the Sainsbury soil collection bucket from yawing and pitching while it is being towed on a cable by an aircraft, but they have no disclosed or claimed lift function, and are nowhere in the patent called airfoils.

In support of his analogy between the aerodynamic shape of Sainsbury’s bucket and Applicant’s airfoil sampler, Examiner supplied a definition of airfoil that includes the provision of stability. Examiner is correct that a fin, even a symmetrical fin like those of the Sainsbury bucket

(see Sainsbury's Fig. 7), can be considered an airfoil according to the dictionary definition he cited. However, Webster's Ninth New Collegiate Dictionary defines an airfoil as "a body (as in an airplane wing or propeller blade) designed to provide a desired reaction force when in motion relative to the surrounding air". Webster's Third New International Unabridged Dictionary defines an airfoil as "a body (as an airplane wing or propeller blade) designed to provide a desired reaction force when in motion relative to the surrounding air". The "desired reaction force" is lift on a wing or helicopter rotor or thrust from a propeller blade. Lift and thrust are the preeminent design considerations of airfoils as explained in the Aeronautics section of Marks' Standard Handbook for Mechanical Engineers, 8th ed., pp. 11-58 to 11-73. Applicant has attached two articles that, combined with the Webster's dictionary definitions, indicate that neither the Sainsbury device nor one of its flat symmetrical fins conforms to the general concept of an airfoil.

Applicant offers two dictionary definitions and an aeronautics treatise in contrast with the dictionary definition offered by Examiner. However, the Federal Circuit, in a July 12, 2005 opinion, held that a Specification trumps any dictionary or treatise definition. *Phillips v. AWH Corporation*, ___ F.3d ___, 03-1269 (Fed. Cir. 2005). The Court wrote that the Specification is the best guide to claim term meanings, and that elevating dictionary meanings to such prominence improperly focuses inquiry on abstract meanings of words. *Id.* at 1321. Thus determination if the aerodynamic shape of Sainsbury's device can properly serve as an obviousness reference against Applicant's airfoil features should focus on how "airfoil" should be construed according to the Specification.

Applicant first mentions "airfoil" in paragraph 5, where the airfoil-shaped frame members have leading and trailing edges. Such a description dovetails well with the commonly understood image of an airplane wing or propeller blade airfoil having a bluff leading edge and a tapered trailing

edge. Such a description does not make sense when applied to Sainsbury's device, and Examiner's statement that the Sainsbury bucket itself is an airfoil is incorrect. Office Action page 5, paragraph 2. Nor does such a description make sense even when applied just to the Sainsbury device's fins that have flat rectangular edges, no curvature, and no taper.

Applicant next mentions "airfoil" in paragraph 7 where it is made clear that the term applies to the commonly understood concept of an airplane wing or propeller blade that produces differential pressures and velocities across the airfoil surfaces. Paragraph 7 also directly links the features uniquely attributed to airfoils to the claimed filtration capability. Sainsbury's bucket, with or without its fins, and regardless of how aerodynamic it might be, does not create differential pressures and velocities. Indeed, the last thing Sainsbury wants his invention to do is fly (that is to develop lift) – if it did, it could not hit the ground and obtain the specimen.

Applicant explains the performance of his airfoil device in more detail in paragraphs 9, 27, 28, and 29, and all of Applicant's drawings clearly depict commonly understood airfoil designs. The Specification leaves no room for confusion or ambiguity as to the purpose of Applicant's airfoils, and makes it quite clear to one of ordinary skill in the relevant art that Sainsbury's aerodynamic bucket is not a proper reference on which to base a rejection of the present claims.

Therefore, the Section 103 rejection is respectfully traversed because neither Kataoka nor Sainsbury read on Applicant's invention, and, even if they did, they are in non-analogous and non-related fields offering no motivation to combine.

Examiner rejected claims 17-20 as being anticipated by Turman. The 35 USC §102 rejection is respectfully traversed because Turman does not describe Applicant's invention. In order to establish anticipation, it is incumbent upon the [Examiner] to identify in a single prior art reference

disclosure of each and every element of the claims in issue, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 U.S.P.Q. 481 (Fed. Cir. 1984); *In re Schaumann*, 572 F.2d 312, 197 U.S.P.Q. 5 (C.C.P.A. 1978) (anticipation is measured with respect to the terms of the claims in issue). When the claimed invention is not identically disclosed in a reference, and instead requires picking and choosing among a number of different options disclosed by the reference, **or the inclusion of options not disclosed in the reference**, the reference does not anticipate. *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471, 1480, 1 U.S.P.Q.2d 1241, 1245-46 (Fed. Cir. 1986), *cert. denied*, 482 U.S. 909, 107 S.Ct. 2490 (1987) (emphasis added). “Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, **that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there.**” *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 43 U.S.P.Q.2d 1481, 1490 (Fed. Cir. 1997) (emphasis added).

Turman discloses an aerodynamic device, whereas Applicant discloses an airfoil device. For the reasons stated above with respect to the aerodynamic shape of the Sainsbury device, Turman does not anticipate Applicant's invention. Turman's "aerodynamic exterior" (column 2; line 39) does not generate lift, thus Examiner improperly reads "airfoil" into "aerodynamic". Office Action page 2, last paragraph, continued on page 3. Turman separates airstream particles of varying weight with a swirling motion (column 4; line 23) created by the movement of a set of fixed vanes (column 3; line 5) through the air (centrifugal forces). Applicant's claimed airfoil shape efficiently makes use of the velocity and pressure gradients imposed on an airstream flowing over an airfoil (Bernoulli's principal). Furthermore, Turman requires a moveable aperture, requiring an external rotation such as by a motor, thereby adding to the considerable mass and power consumption of his

device. By contrast, the present invention requires no moving parts for its sampling function, is capable of gathering particulates of varied size merely by using different absorbent media in different sections of the device or by changing the absorbent media during sampling flights, and weighs a fraction of the huge Turman device.

In addition to disclosing all of the claimed elements, an anticipating reference must enable one skilled in the art to practice the invention. See *Key Pharm., Inc. v. Hercon Lab. Corp.*, 981 F.Supp. 299, 310-311 (D.Del. 1997). Applicant respectfully submits that not even one of ordinary skill in the relevant art would be enabled by Turman to practice Applicant's invention because Turman makes no mention whatsoever of the pressure and velocity differentials created by airfoils. Turman, by his reliance on powered swirling motion, actually teaches away from Applicant's unique reliance on the science of airfoils, i.e. "a person of ordinary skill, upon reading the reference, would be discouraged ... and led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

Examiner, in rejecting claims 1-5, 7-13, and 16 as obvious over Turman in view of Kataoka, and further in view of Sainsbury, states incorrectly that "Turman teaches every limitation of claim 1". Office Action page 3, paragraph 2. Applicant's claim 1 includes "an at least partially airfoil shaped frame"; Turman neither discloses nor claims an airfoil. Here again, Examiner improperly reads "airfoil" into "aerodynamic". For the reasons stated above, neither Turman, Kataoka, nor Sainsbury qualify as obviousness references.

Examiner rejects claims 1, 2, 13, and 21 as being obvious over Sainsbury in view of Kataoka. For all the above-stated reasons, Applicant submits that neither Sainsbury nor Kataoka qualify as obviousness references.

The Examiner indicated allowance of claims 6, 14, and 15 if rewritten in independent form including their intervening claims. To that end Applicant submits claim 21 amended to include all limitations of claims 1-6, 14, and 15.

In the First Office Action, Examiner cited Saaski as providing for sampling of an airstream by moving a sampling device through the air. In the Response to the First Office Action, Applicant submitted that the Saaski device does not use an airfoil, as admitted by Examiner. Applicant also pointed out that Saaski's device and method are further differentiated from Applicant's invention by the use of liquid or fog stripping agents to collect a single predetermined pollutant from an airstream. In the Final Office Action, Examiner stated that "the claims are not so limited". Office Action page 5, paragraph 4. Examiner is incorrect. Saaski's Abstract and his Description (column 6, lines 37-45) call for liquid stripping agents, and the preamble of all 24 of Saaski's independent claims reads as follows: "An air sampler; whereas said air sampler is adapted to strip a target material from an air flow with a stripping liquid...". In any event, none of the references cited by Examiner (Saaski, Barringer, and Couchman) can support an obviousness rejection based on Sainsbury, Kataoka, or Turman because the latter are non-analogous art.

As regards to aerodynamic versus airfoil, Applicant points out that today's modern cars are very aerodynamic (thus reducing drag), but are not airfoils. If they were airfoils, they would lift at speed and lose adhesion with the road surface. Bullets, for example, are aerodynamic, but don't generate lift, or else they would not go straight in a straight line. Further, given the abundant arguments set forth in the file wrapper, no one could ever read or mistake that Applicant's claim is designed to cover a device that is not airfoil in shape. For example, the abstract of Turman points out to its "drag reducing aerodynamically figured housing."

Request. Applicant respectfully requests reconsideration and placement of all specifications, drawings, and claims as amended in condition for allowance. If the Examiner believes a telephone conference would be helpful to allowance, a telephone conference is respectfully requested.

Fee. Although Applicant believes no fees are due at this time, the U.S. Patent and Trademark Office is authorized to charge any fees due, in full or in part, to Deposit Account 07-2400 (P-122152.2).

Respectfully submitted,

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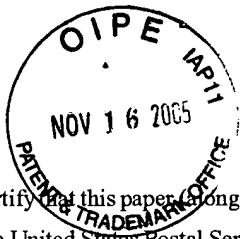
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